SAMPLE MATERIAL

Activity: Linear Mingle

Terman Middle School, California

Topic: National Math Panel: The Major Topics of School Algebra
Practice: Multiple Paths

Teacher Paul Jorgens uses an activity to build student fluency and experience with algebraic vocabulary, concepts, and symbols. He makes copies of the attached materials and cuts them into separate cards. Each card has a representation of an equation, graph, written statement, or set of values for coordinates. He then mixes up the cards and hands them out to students. The object of the activity is for students to find the matches of representations. If students are having difficulty with the activity, he may initially limit the initial sets to two types (e.g., graphs and equations) and then add additional cards. The matching activity carried out in groups stimulates student discussions, using algebraic vocabulary.

$y = x - 1$	$y = -x + 1$
$y = x + 1$	$y = \frac{1}{2}x$
$y = -\frac{1}{2}x$	$y = 2x + 1$
$y = -2x + 1$	$y = 3x - 2$

x	y
-2	-3
-1	-2
0	-1
1	0
2	1

x	y
-2	3
-1	2
0	1
1	0
2	-1

x	y
-2	-1
-1	0
0	1
1	2
2	3

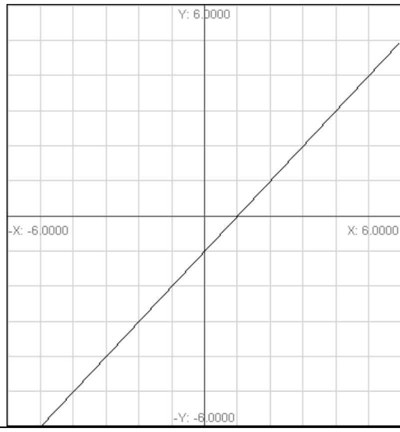
x	y
-2	1
-1	0.5
0	0
1	-0.5
2	-1

x	y
-2	-1
-1	-0.5
0	0
1	0.5
2	1

x	y
-2	-3
-1	-1
0	1
1	3
2	5

x	y
-2	5
-1	3
0	1
1	-1
2	-3

x	y
-2	-8
-1	-5
0	-2
1	1
2	4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X: 6.0000
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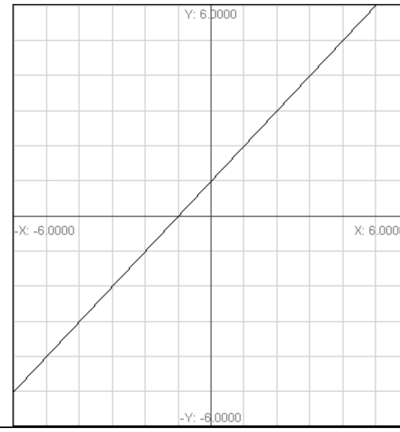
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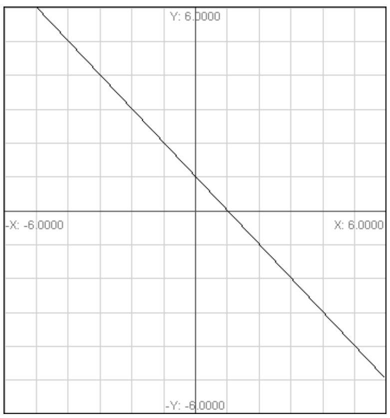
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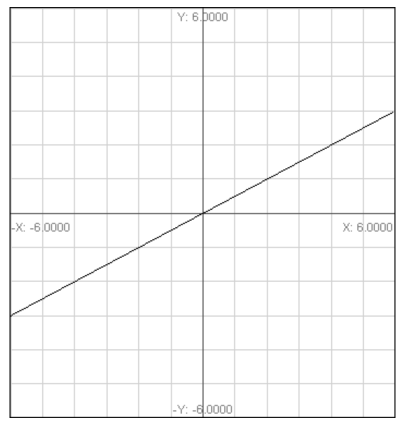
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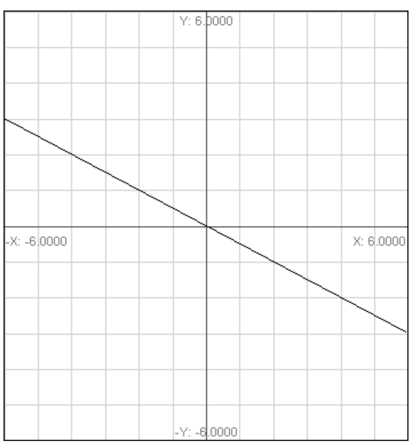
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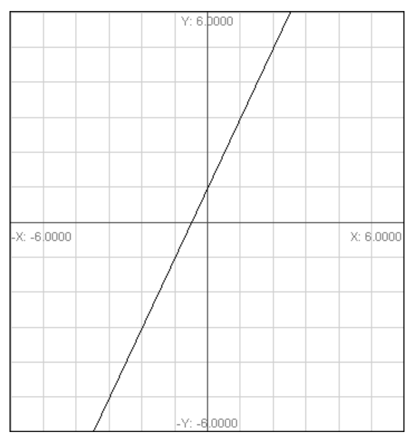
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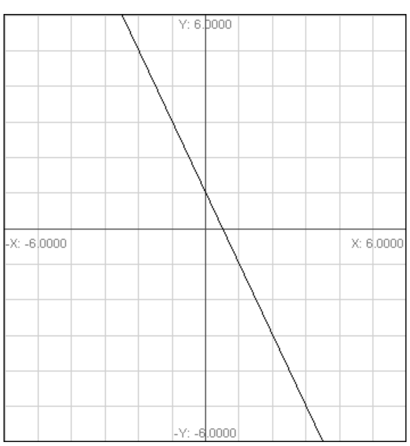
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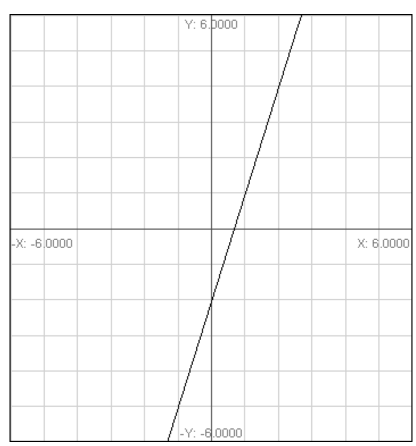
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The y-value is one less than the x-value	The y-value is one more than the opposite of the x-value
The y-value is the x-value increased by one.	The y-value is one half of the x-value.
The y-value is the opposite of one half the x-value.	The y-value is one more than twice the x-value
The y-value is one more than twice the opposite of the x-value	The y-value is two less than three times the x-value.